10

15

ABSTRACT

Methods and systems for compression of digital images (still or motion sequences) are provided wherein predetermined criteria may be used to identify a plurality of areas of interest in the image, and each area of interest is encoded with a corresponding quality level (Q-factor). In particular, the predetermined criteria may be derived from measurements of where a viewing audience is focusing their gaze (area of interest). In addition, the predetermined criteria may be used to create areas of interest in an image in order to focus an observer's attention to that area. Portions of the image outside of the areas of interest are encoded at a lower quality factor and bit rate. The result is higher compression ratios without adversely affecting a viewer's perception of the overall quality of the image.

March 28, 2001